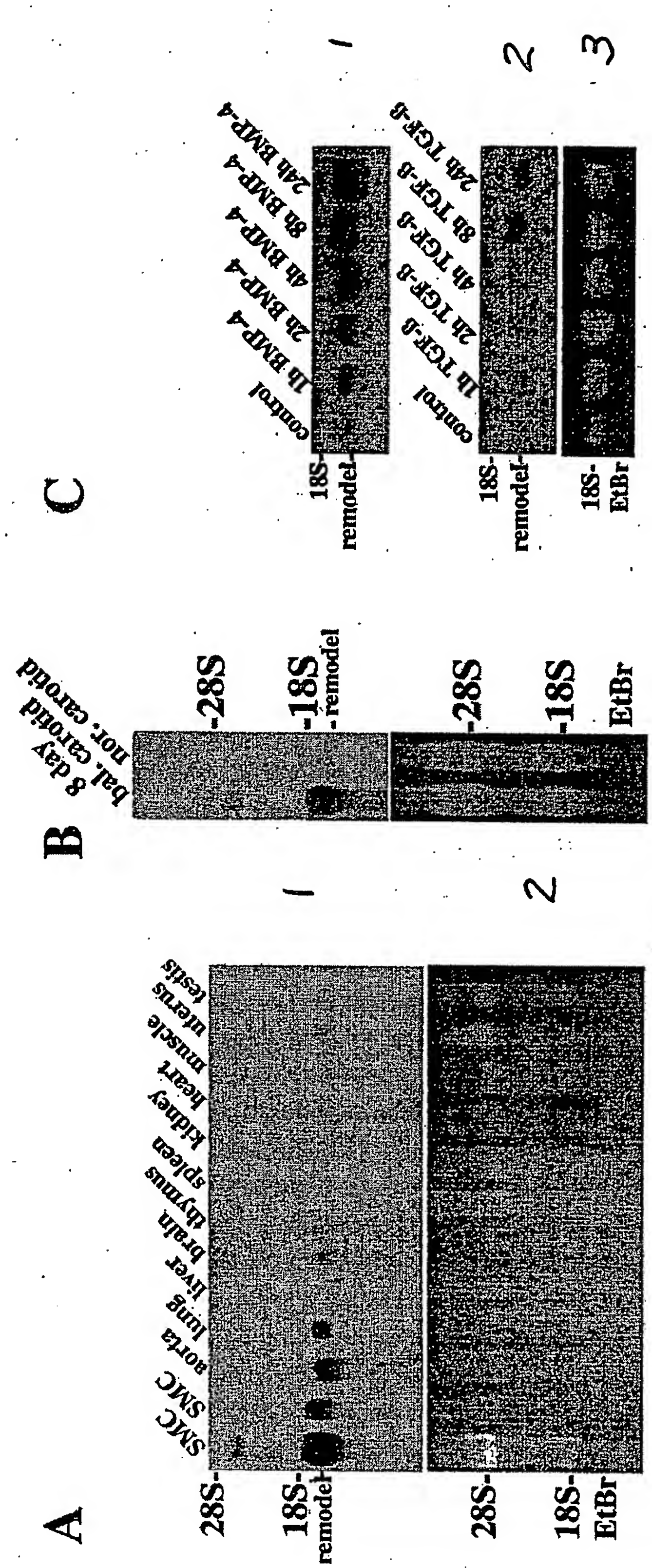

A
28S-
18S-
remodel
28S-
18S-
EtBr
SMC
SMC
aorta
lung
liver
brain
thymus
spleen
kidney
heart
muscle
uterus
testis
1
2
B
8 day
bal. carotid
nor. carotid
-28S
-18S
-remodel
-28S
-18S
EtBr
C
18S-
remodel
control
1h BMP-4
2h BMP-4
4h BMP-4
8h BMP-4
24h BMP-4
18S-
remodel
control
1h TGF-ß
2h TGF-ß
4h TGF-ß
8h TGF-ß
24h TGF-ß
18S-
EtBr
1
2
3

FIG. 1

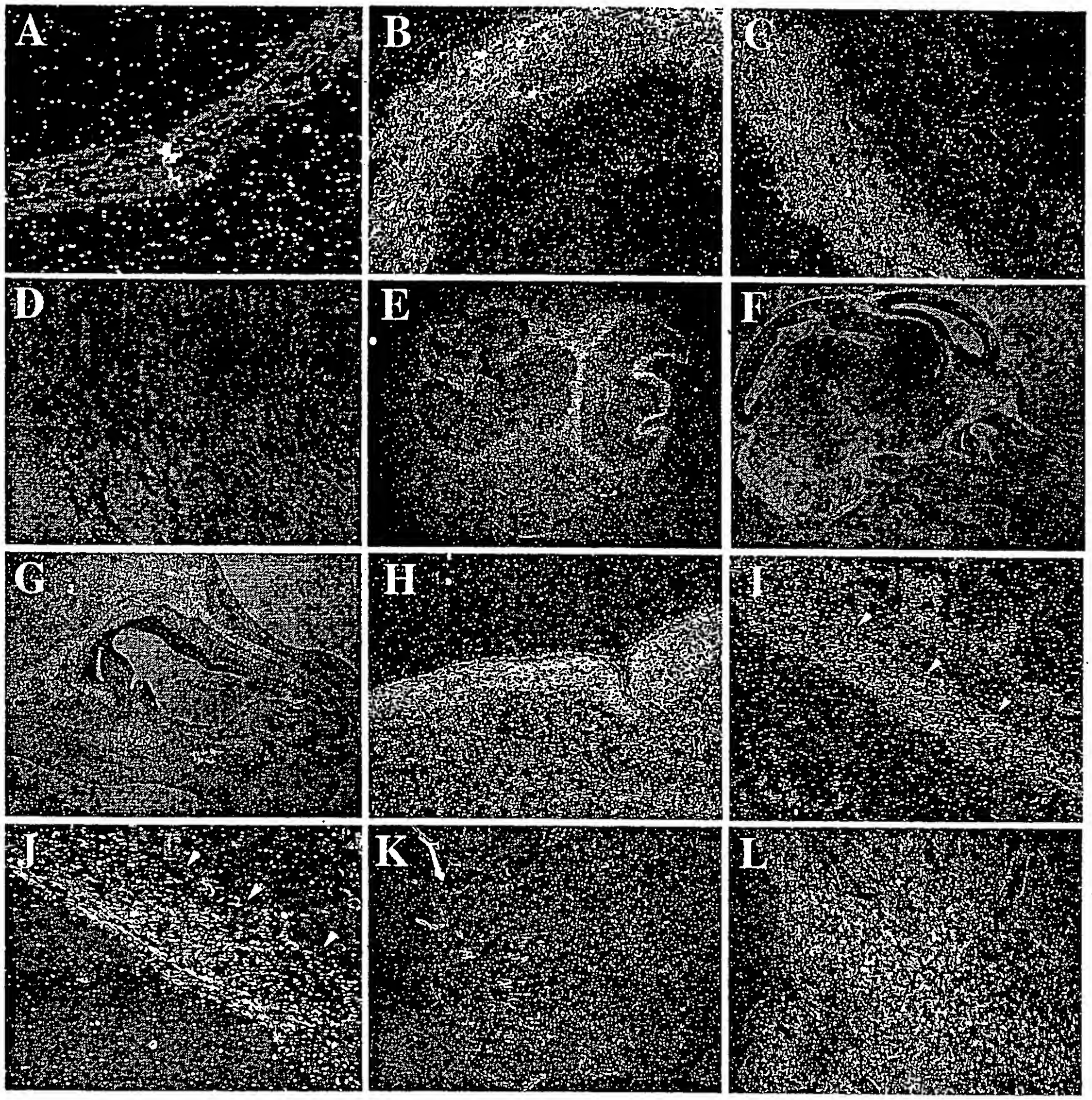
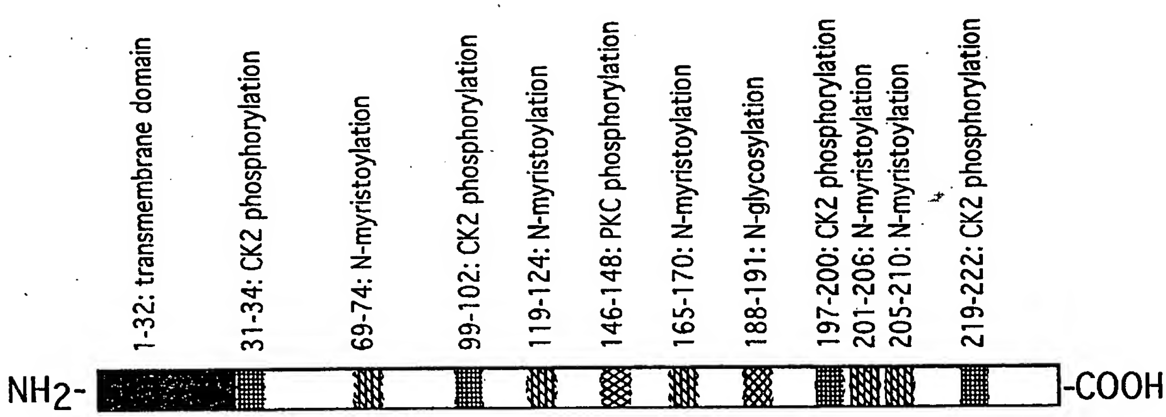



FIG. 2



NH2-
-COOH
1-32: transmembrane domain
31-34: CK2 phosphorylation
69-74: N-myristoylation
99-102: CK2 phosphorylation
119-124: N-myristoylation
146-148: PKC phosphorylation
165-170: N-myristoylation
188-191: N-glycosylation
197-200: CK2 phosphorylation
201-206: N-myristoylation
205-210: N-myristoylation
219-222: CK2 phosphorylation


FIG. 3

```
Rat     CCCTTTGCCTCCTGCTCTGCGCTTCGCAGCTACCGCACACGATGCACCCCCAAGGCCGCG
Human   TCCTCCGCCTCCAGCTCCGCGCTGCCCGGCAGCCGGGAGCCATGCGACCCCAGGGCCCCG
              70        80        90        100       110       120
          140       150       160       170       180       190
Rat     CCGCCTCCCCACAGCTGCTGCTCGGCCTCTTCCTTGTGCTACTGCTGCTTCTGCAGCTGT
Human   CCGCCTCCCCGCAGCGGCTCCGCGGCCTCCT------GCTGCTCCTGCTGCTGCAGCTGC
           130       140       150                 160       170
          200       210       220       230       240       250
Rat     CCGCGCCGTCCAGCGCCTCTGAGAATCCCAAGGTGAAGCAAAAAGCGCTGATCCGGCAGA
Human   CCGCGCCGTCGAGCGCCTCTGAGATCCCCAAGGGGAAGCAAAAGGCGCAGCTCCGGCAGA
         180       190       200       210       220       230
          260       270       280       290       300       310
Rat     GGGAAGTGGTAGACCTGTATAATGGGATGTGCCTACAAGGACCAGCAGGAGTTCCTGGTC
Human   GGGAGGTGGTGGACCTGTATAATGGAATGTGCTTACAAGGGCCAGCAGGAGTGCCTGGTC
         240       250       260       270       280       290
          320       330       340       350       360       370
Rat     GCGATGGGAGCCCTGGGGCCAATGGCATTCCTGGCACACCGGGAATCCCAGGTCGGGATG
Human   GAGACGGGAGCCCTGGGGCCAATGGCATTCCGGGTACACCTGGGATCCCAGGTCGGGATG
         300       310       320       330       340       350
          380       390       400       410       420       430
Rat     GATTCAAAGGAGAGAAAGGGGAGTGCTTAAGGGAAAGCTTTGAGGAATCCTGGACCCCAA
Human   GATTCAAAGGAGAAAAGGGGGAATGTCTGAGGGAAAGCTTTGAGGAGTCCTGGACACCCA
         360       370       380       390       400       410
          440       450       460       470       480       490
Rat     ACTACAAGCAGTGTTCATGGAGTTCACTTAATTATGGCATAGATCTTGGGAAAATTGCGG
Human   ACTACAAGCAGTGTTCATGGAGTTCATTGAATTATGGCATAGATCTTGGGAAAATTGCGG
         420       430       440       450       460       470
          500       510       520       530       540       550
Rat     AATGTACATTCACAAAGATGCGATCCAACAGCGCTCTTCGAGTTCTGTTCAGTGGCTCGC
Human   AGTGTACATTTACAAAGATGCGTTCAAATAGTGCTCTAAGAGTTTTGTTCAGTGGCTCAC
         480       490       500       510       520       530
          560       570       580       590       600       610
Rat     TTCGGCTCAAATGCAGGAATGCTTGCTGTCAACGCTGGTATTTTACCTTTAATGGAGCTG
Human   TTCGGCTAAAATGCAGAAATGCATGCTGTCAGCGTTGGTATTTCACATTCAATGGAGCTG
         540       550       560       570       580       590
          620       630       640       650       660       670
Rat     AATGTTCAGGACCTCTTCCCATTGAAGCTATCATCTATCTGGACCAAGGAAGCCCTGAGT
Human   AATGTTCAGGACCTCTTCCCATTGAAGCTATAATTTATTTGGACCAAGGAAGCCCTGAAA
         600       610       620       630       640       650
          680       690       700       710       720       730
Rat     TAAATTCAACTATTAATATTCATCGTACTTCCTCCGTGGAAGGACTCTGTGAAGGGATTG
Human   TGAATTCAACAATTAATATTCATCGCACTTCTTCTGTGGAAGGACTTTGTGAAGGAATTG
         660       670       680       690       700       710
          740       750       760       770       780       790
Rat     GTGCTGGACTGGTAGACGTGGCCATCTGGGTCGGCACCTGTTCAGATTACCCCAAAGGAG
Human   GTGCTGGATTAGTGGATGTTGCTATCTGGGTTGGCACTTGTTCAGATTACCCAAAAGGAG
         720       730       740       750       760       770
          800       810       820       830       840       850
Rat     ACGCTTCTACTGGGTGGAATTCTGTGTCCCGCATCATCATTGAAGAACTACCAAAATAAA
Human   ATGCTTCTACTGGATGGAATTCAGTTTCTCGCATCATTATTGAAGAACTACCAAAATAAA
         780       790       800       810       820       830
          860       870       880       890       900       910
Rat     GCCCCTGAAGGTTTCATTCCCTGCCTCATTTACTTGTTAAATCAAGCCTCTGGATGGGTC
Human   TGCTTTAAT--TTTCATTTGCTACCTCTTTTTTT------ATTATGCCTTGGAATGGTTC
         840        850       860                870       880
          920       930       940       950       960       970
Rat     ATTTAAATGACATTTCAGAAGTCACTTATGTGCTCAGCCAAATGAAAAAGCAAAGTTAAA
Human   ACTTAAATGACATTTTA-AATAAGTTTATGTATACATCTGAATGAAAA-GCAAAGCTAAA
       890       900        910       920       930        940
          980       990       1000          1010      1020      1030
Rat     TACGTTTACAGACCAAAGTGTGATCTCACACT---TTAAGATCTAGCATTATCCATTTTA
Human   TATGTTTACAGACCAAAGTGTGATTTCACACTGTTTTAAATCTAGCATTATTCATTTTG
         950       960       970       980       990       1000
            1040      1050      1060      1070      1080
Rat     TTTCAACCAAAGATGGTTTCAGGATTTTATTTCTCATT--GATTACTTTTTG--------
Human   CTTCAATCAAAAGTGGTTTCAATATTTTTTTAGTTGGTTAGAATACTTTCTTCATAGTCA
        1010      1020      1030      1040      1050      1060
                  1090      1100      1110      1120      1130
Rat     ---------AGCCTATATACCGGAATGCTGTTATAGTCTTTAATATTTCCTACT-GTTGA
Human   CATTCTCTCAACCTATAATTTGGAATATTGTTGTGGTCTTTTGTTTTTTCTCTTAGTATA
        1070      1080      1090      1100      1110      1120
             1140      1150        1160      1170            1180
Rat     -CATTTTGAAACA--TATAAAAGTTATG--TCTTTGTAAGAGCTGTATA------GAATT
Human   GCATTTTTAAAAAAATATAAAAGCTACCAATCTTTGTACAATTTGTAAATGTTAAGAATT
        1130      1140      1150      1160      1170      1180
                1190      1200        1210
Rat     ATTTT---ATATGTTAAATAAA---TGCTTCAAACAA
Human   TTTTTTATATCTGTTAAATAAAAATTATTTCCAACAA
        1190      1200      1210      1220
```

FiG. 4A

```
Rat:    1    MHPQGRAASPQLLLGLFLVLLLLLLQLSAPSSASENPKVKQKALIRQREVVDLYNGMCLQG   60
             M+PQG+AASPQ+L+GL+++LLLLLQL+APSSASE+PK+KQKA++RQREVVDLYNGMCLQG
Human:  1    MRPQGPAASPQRLRGL--LLLLLLQLPAPSSASEIPKGKQKAQLRQREVVDLYNGMCLQG   58

Rat:    61   PAGVPGRDGSPGANGIPGTPGIPGRDGFKGEKGECLRESFEESWTPNYKQCSWSSLNYGI   120
             PAGVPGRDGSPGANGIPGTPGIPGRDGFKGEKGECLRESFEESWTPNYKQCSWSSLNYGI
Human:  59   PAGVPGRDGSPGANGIPGTPGIPGRDGFKGEKGECLRESFEESWTPNYKQCSWSSLNYGI   118

Rat:    121  DLGKIAECTFTKMRSNSALRVLFSGSLRLKCRNACCQRWYFTFNGAECSGPLPIEAIIYL   180
             DLGKIAECTFTKMRSNSALRVLFSGSLRLKCRNACCQRWYFTFNGAECSGPLPIEAIIYL
Human:  119  DLGKIAECTFTKMRSNSALRVLFSGSLRLKCRNACCQRWYFTFNGAECSGPLPIEAIIYL   178

Rat:    181  DQGSPELNSTINIHRTSSVEGLCEGIGAGLVDVAIWVGTCSDYPKGDASTGWNSVSRIII   240
             DQGSPE+NSTINIHRTSSVEGLCEGIGAGLVDVAIWVGTCSDYPKGDASTGWNSVSRIII
Human:  179  DQGSPEMNSTINIHRTSSVEGLCEGIGAGLVDVAIWVGTCSDYPKGDASTGWNSVSRIII   238

Rat:    241  EELPK   245
             EELPK
Human:  239  EELPK   243
```

FiG. 4B

MRPAAELGQTLSRAGLCRPLCLLLCASQLPHTMHPQGRAASPQLLLGLFLVLLLLLQL
SAPSSASENPKVKQKALIRQREVVDLYNGMCLQGPAGVPGRDGSPGANGIPGTPGIPG
RDGFKGEKGECLRESFEESWTPNYKQCSWSSLNYGIDLGKIAECTFTKMRSNSALRVL
FSGSLRLKCRNACCQRWYFTFNGAECSGPLPIEAIIYLDQGSPELNSTINIHRTSSVE
GLCEGIGAGLVDVAIWVGTCSDYPKGDASTGWNSVSRIIIEELPK

**FIG. 4C**

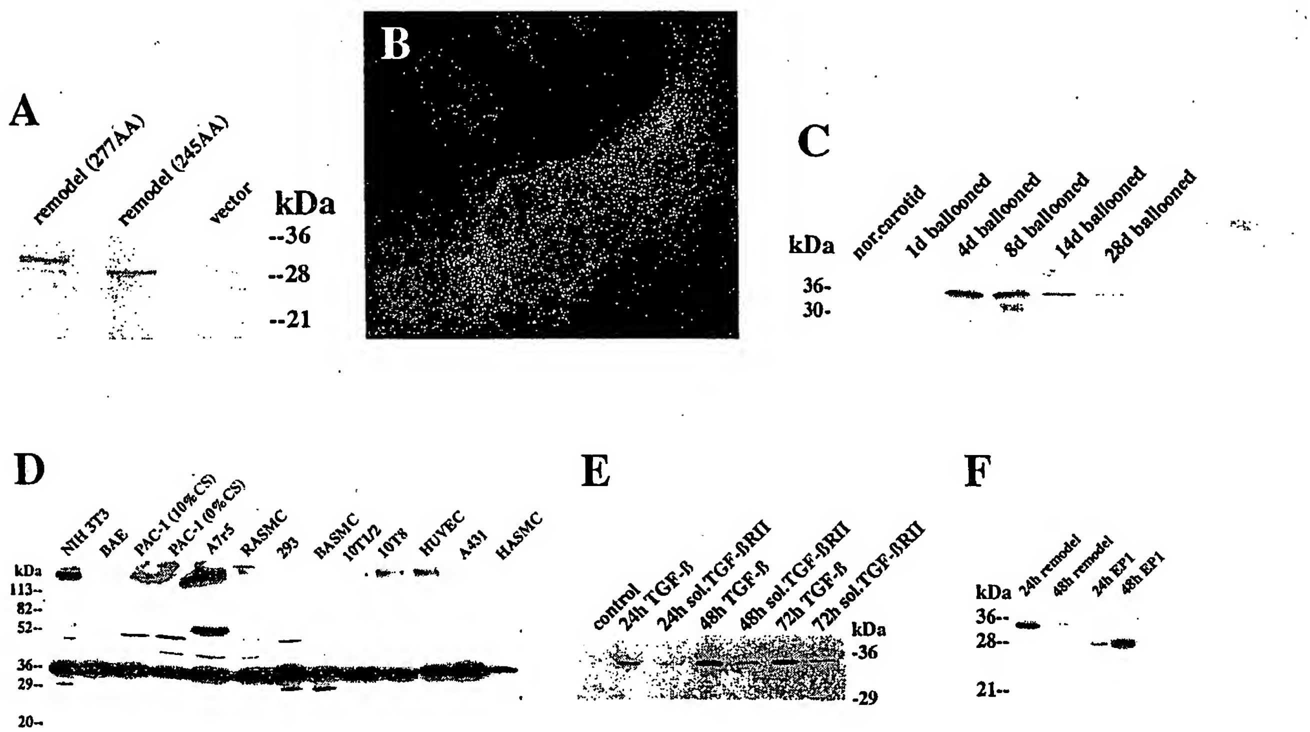

A
remodel (277AA)
remodel (245AA)
vector
kDa
--36
--28
--21
B
C
kDa
nor.carotid
1d ballooned
4d ballooned
8d ballooned
14d ballooned
28d ballooned
36-
30-
D
kDa
113--
82--
52--
36--
29--
20--
NIH 3T3
BAE
PAC-1 (10% CS)
PAC-1 (0% CS)
A7r5
RASMC
293
BASMC
10T1/2
10T8
HUVEC
A431
HASMC
E
control
24h TGF-ß
24h sol.TGF-ßRII
48h TGF-ß
48h sol.TGF-ßRII
72h TGF-ß
72h sol.TGF-ßRII
kDa
-36
-29
F
kDa
24h remodel
48h remodel
24h EP1
48h EP1
36--
28--
21--

FIG. 5

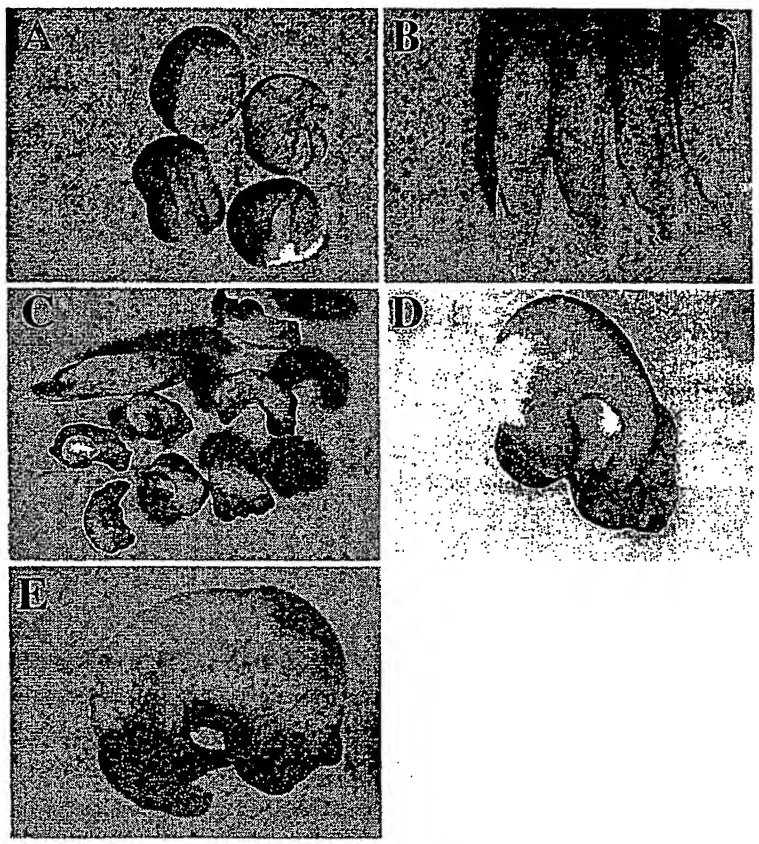



FIG. 6

**ATG** GCCCCCAAGG CCGCGCCGCC TCCCCACAGC TGCTGCTCGG CCTCTTCCTT GTGCTACTGC
TGCTTCTGCA GCTGTCCGCG CCGTCCAGCG CCTCTGAGAA TCCCAAGGTG AAGCAAAAAG
CGCTGATCCG GCAGAGGGAA GTGGTAGACC TGTATAATGG GATGTGCCTA CAAGGACCAG
CAGGAGTTCC TGGTCGCGAT GGGAGCCCTG GGGCCAATGG CATTCCTGGC ACACCGGGAA
TCCCAGGTCG GGATGGATTC AAAGGAGAGA AAGGGGAGTG CTTAAGGGAA AGCTTTGAGG
AATCCTGGAC CCCAAACTAC AAGCAGTGTT CATGGAGTTC ACTTAATTAT GGCATAGATC
TTGGGAAAAT TGCGGAATGT ACATTCACAA AGATGCGATC CAACAGCGCT CTTCGAGTTC
TGTTCAGTGG CTCGCTTCGG CTCAAATGCA GGAATGCTTG CTGTCAACGC TGGTATTTTA
CCTTTAATGG AGCTGAATGT TCAGGACCTC TTCCCATTGA AGCTATCATC TATCTGGACC
AAGGAAGCCC TGAGTTAAAT TCAACTATTA ATATTCATCG TACTTCCTCC GTGGAAGGAC
TCTGTGAAGG GATTGGTGCT GGACTGGTAG ACGTGGCCAT CTGGGTCGGC ACCTGTTCAG
ATTACCCCAA AGGAGACGCT TCTACTGGGT GGAATTCTGT GTCCCGCATC ATCATTGAAG
AACTACCAAA A

**FIG. 7**

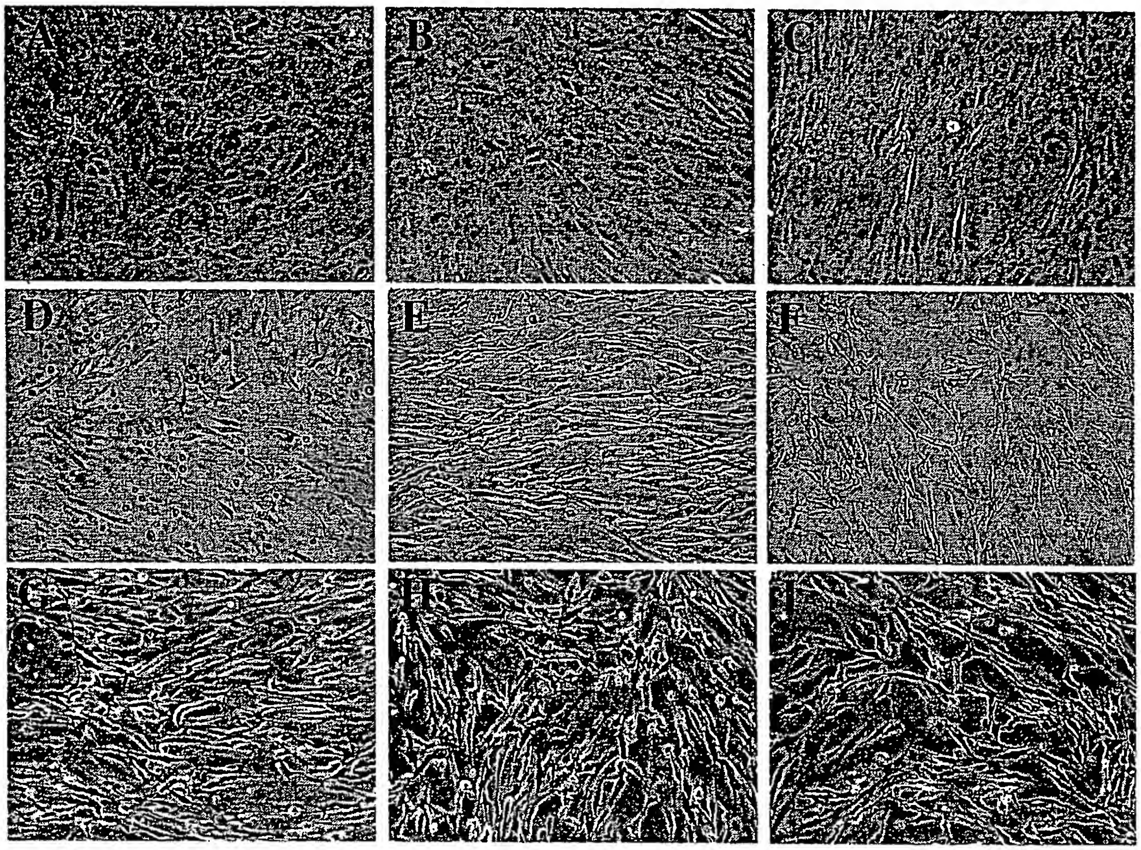



FIG. 8

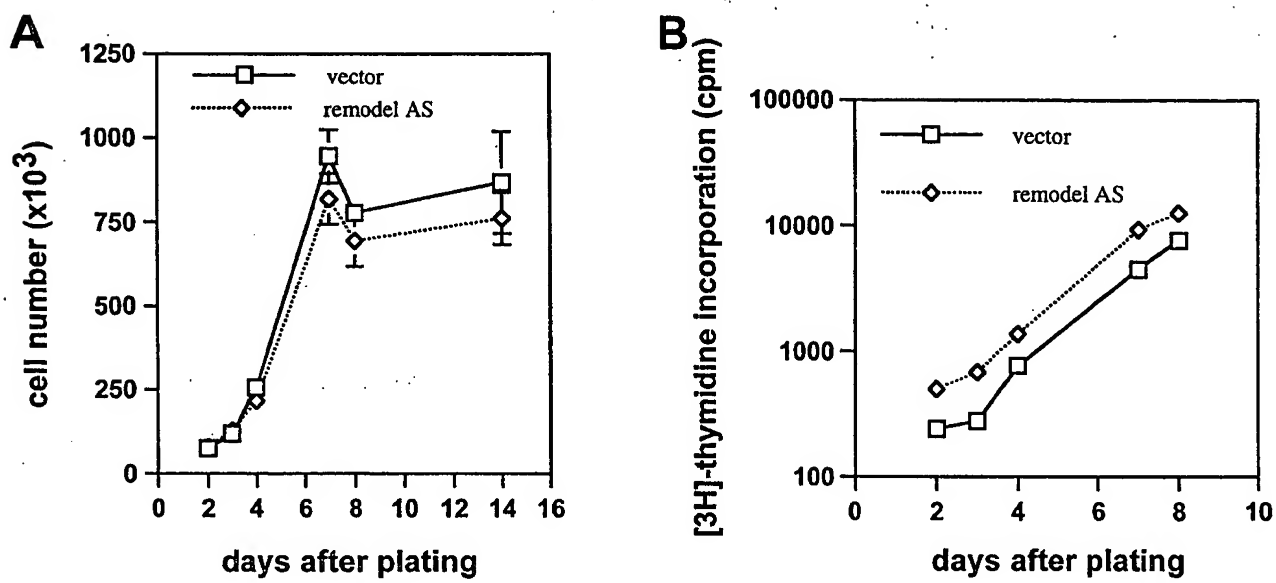

A
cell number (x10³)
1250
1000
750
500
250
0
vector
remodel AS
0
2
4
6
8
10
12
14
16
days after plating
B
[3H]-thymidine incorporation (cpm)
100000
10000
1000
100
vector
remodel AS
0
2
4
6
8
10
days after plating

FiG. 9

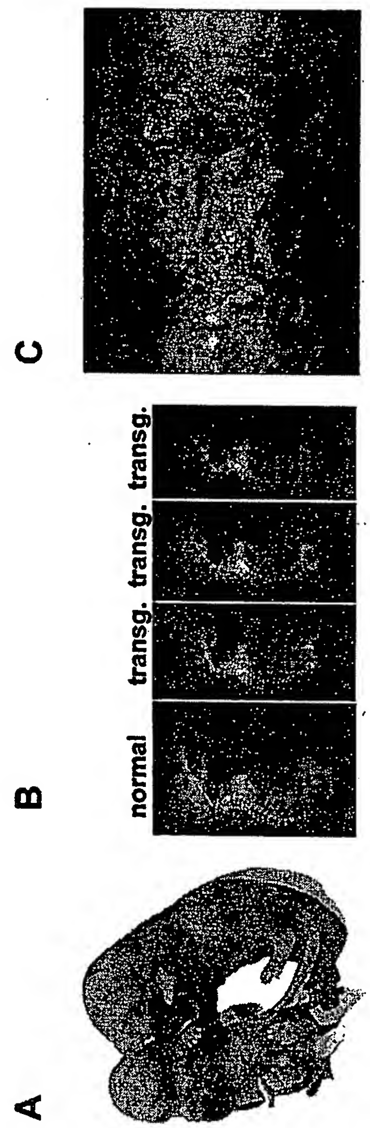



FiG. 10

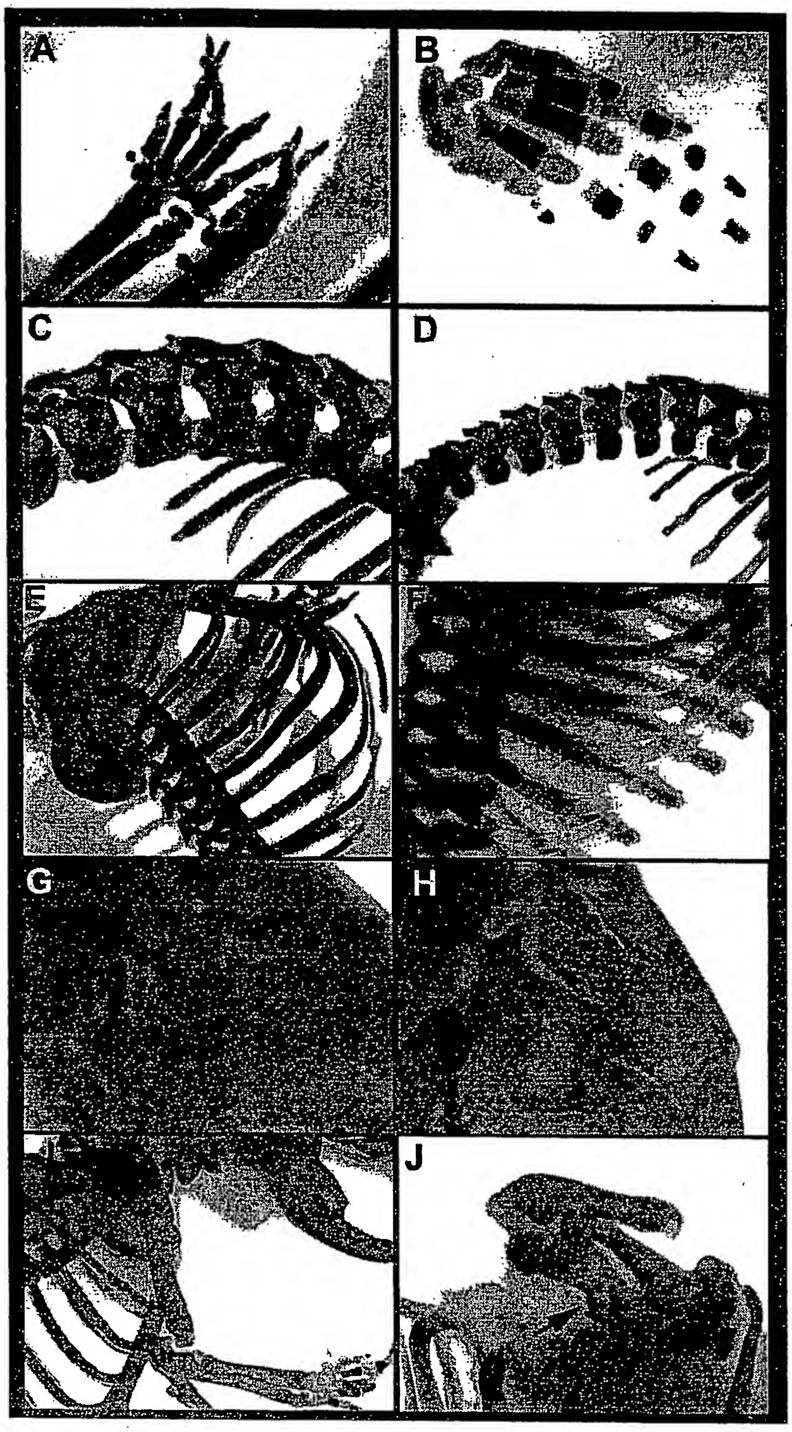



FIG. 11

CCACCCAGUAGAAGCGUCUCCUUUGGGGUAAUCUGAACAGGUGCCGACCCAGAUGGCC
ACGUCUACCAGUCCAGCACCAAUCCCUUCACAGAGUCCUUCCACGGAGGAAGUACGAU
GAAUAUUAAUAGUUGAAUUUAACUCAGGGCUUCCUUGGUCCAGAUAGAUGAUAGCUUC
AAUGGGAAGAGGUCCUGAACAUUCAGCUCCAUUAAAGGUAAAAUACCAGCGUUGACAG
CAAGCAUUCCUGCAUUUGAGCCGAAGCGAGCCACUGAACAGAACUCGAAGAGCGCUGU
UGGAUCGCAUCUUUGUGAAUGUACAUUCCGCAAUUUUCCCAAGAUCUAUGCCAUAAUU
AAGUGAACUCCAUGAACACUGCUUGUAGUUUGGGGUCCAGGAUUCCUCAAAGCUU

**FIG. 12**